FIELD-READY

COMMAND CONSOLE S

User Manual

Z Microsystems

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO, DO NOT USE THIS UNIT'S POLARIZED AC PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS UNLESS ALL THREE PRONGS CAN BE FULLY INSERTED.

COMMAND CONSOLE S

1. Use the power and video cables supplied with the Command Console to help prevent interference with radio and television reception. The use of cables and adapters may cause interference with electronic equipment in the vicinity of this unit.
2. This equipment has been tested and found to comply with the limits for Class "A" digital devices, pursuant to certain limits imposed by Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in when equipment is operated in commercial environments. This equipment generates, uses and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
3. Operation of this equipment in a residential area is likely to cause interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by Z Microsystems could void user's authority to operate the equipment

CAUTION

RISK OF ELECTRIC SHOCK – DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK OF UNIT). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

This symbol warns the user that insulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore it should be read carefully in order to avoid any problems.

CONTENTS

STARTING POINT 4
Shipment Contents 4
User Manual 4
Product Description 5
Required Tools 6

INSTALL RAILS 7

INSTALL CONSOLE 9

CLOSE-UP ON Z LOCKS 11

SETUP 12
Closing Console 13

CABLES 14

MONITOR 15

TROUBLESHOOTING 21

SUPPORT 22

MAINTENANCE 23

SPECIFICATIONS 24

WARRANTIES 25

REPLACEMENT PARTS 30

MECHANICAL DRAWINGS 31

HARDWARE INSTALL 36

The Command Console shipping box contains the following:

- The Command Console
- Video Signal Cable
- AC Power Cable
- USB or PS2 Cable
- User Manual
- Mounting hardware

Remember to save your original shipping container and packing material to transport or ship the Command Console.
The Command Console works with any computer system that provides industry standard screen formats up to 1280 x 1024 resolution.

This Manual is also available on the Z Microsystems website (www.zmicro.com).

We recommend you read this manual carefully and follow the instructions in the Installation and chapter for hookup and initial control settings.

PRODUCT DESCRIPTION

The ultra-slim Command Console S model is designed for rapid deployable applications and fits any 19" RETMA rack or transit case.

The Command Console S model brings together an 18.1” (1280 x 1024) flat panel display, a full size water tight keyboard and track ball all in only 1.75" (1U) height.

The Command Console S model also solved cable retracting problems. An integral custom engineered articulating arm provides smooth cable management which eliminates cables from getting tangled and caught on other equipment as the console is pulled in and out of the rack.

To further assure rapid deployment, dual quick-locks/release mechanisms hold the Command Console S model firmly in the storage position and allow it to be quickly set up and operational. A custom torque adjustable hinge can be adjusted to hold the display securely at any viewing angle, in the most turbulent situations.

The Command Console S model is manufactured entirely from lightweight, aircraft grade, CNC machined aluminum and finished with a tough, baked powder coating to provide the utmost strength, durability and light weight.

All configurations have the following “key features”:

- USB Connections or PS/2 Connections (connector clamp-down) for keyboard and TB.
- 88-key water tight keyboard.
- Three button sealed trackball
- 12-function keys and arrow keys.
- Fits 24in and 25in deep racks.

Required Tools and Equipment

- #2 Phillips screwdriver with about 10" shaft.
- 5/16 Nut Driver
- 5/16 Open-End Wrench

DANGER: *To avoid shock hazard:*

- *Do not remove the covers around the Command Console.*
- *Do not connect or disconnect the Command Console during an electrical storm.*
- *The power cord plug must be connected to a properly wired and grounded power outlet.*
- *Any equipment to which the Command Console will be attached must also be connected to properly wired and grounded power outlets.*

In preparation to install the Command Console, take the following precautionary steps:

Turn off the electrical power to your computer.

Verify the Command Console power switch is off. If the Console is off, the light will not be illuminated.

NOTE: For the fastest and easiest installation of the Command Console, follow these steps in the sequence they are presented.

The first step is to remove the outer rack mounting slide channels from the Console.

On the rear unscrew the left and right rear rack mounting brackets to free up the outer rack mounting slide channels from the Console.

Press the spring loaded Z Locks towards the middle to release the outer rack mount slide channels and at the same time slide the rack mounting block back.

Slide the channels back until they stop about half way back.

This is a safety stop to prevent the Console from sliding out too far while mounted to the rack.

Simultaneously press in the first set of safety catches on each slide rail and slide the channel until the second safety catches stop the sliding action.

Simultaneously press in the second set of safety catches on each slide rail and slide the channel all the way off the back of the Console.

Both outer rack mount slide channels should be separated at this time.

The slide channels come pre-assembled to fit a 24” deep rack. To fit a 25” rack, the rear mounting bracket can be repositioned as shown here.

To mount the channels on the front of the RETMA rails (in most cases), use two 10-32 Phillips screws

on each side to secure the Z-Lock mounts.

Be sure to press the slide rail flat against the

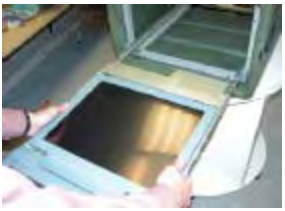
RETMA rail as you tighten the screws.

On the rear of the cabinet frame, also use two Phillips screws.

Install on each side to secure the left and right Z-Lock mounts.

On the slide rails, using a screwdriver and wrench, tighten the slide extension rail screw. Repeat on each side.

Pull the two Console slides out until they lock in the second lock position.



Hold the Console by each side, with the front toward you and as horizontal as possible.

Guide the Console's inner slide member into the middle slide member, and gently slide the Console into the slide assembly until it stops.

Simultaneously press in the first set of catches on each slide and slide the channel until the second safety catches stop the sliding action.

Simultaneously press in the second set of safety catches on each slide rail and slide the channel all the way off the back of the Console.

Slide in the Console.

The Console should look like this at this point.

On the rear left, reconnect the rack mounting bracket with the rear panel/cable retractor housing.

On the rear right, reconnect the rack mounting bracket with the rear panel/cable retractor housing.

Make sure that all the screws are tight.

If the slide and mount assembly are properly aligned, the Console will smoothly slide in and out.

You may need to open or close the distance between the slides by loosening and re-tightening the screws if binding or severe tightness is experienced.

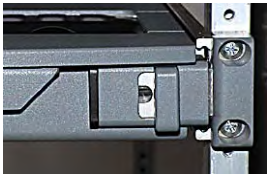
The mechanical principle of the Z Locks is similar to spring-loaded dead bolts. Two stainless steel compression springs in each lock press against the bolt so that it will not come loose even with substantial force.

Push Tab

Slide cover

Spring loaded catch

Slide body



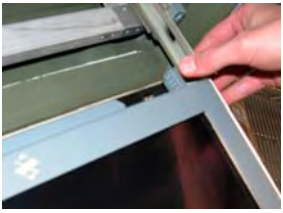
Left and right units are identical

To pull out the Command Console, place your hands so that your palms face upwards.

Your thumb should be on the tab of the lock and the first three fingers are under the pull-out bar. Push the tabs towards

each other and with your fingers pull out the console until the first safety catch stops the slide action.

Press both slide catches inward and pull the console out. Repeat for the second safety catch and pull out all the way.



To raise the display into viewing position, locate the lockdown latch on the

right corner of the tray. Slide the tab with the

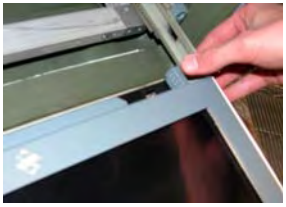
right hand to the right and lift simultaneously with the left hand the display into viewing position.

Push unit into the first locking position of the slides.

To fold down the console, pull out the console fully from the rack

Stand slightly to the right of the unit and lower the panel down on its back into the tray.

With the right hand pull back on the tab of the lock down mechanism.



Lay the panel fully down and release so that the panel becomes locked in the horizontal position.

Disengage the slide lock from the second slide lock position. Push the console into the first slide lock position.

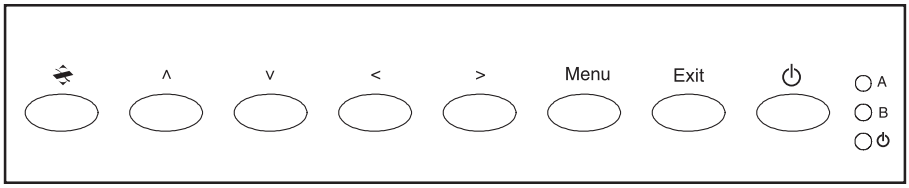
With a hand on the left and right tab of the Z Lock, slide the console into the rack and press on the tabs to open the locks.

Push into maximum seated position and release the locks. The Command Console should be fully locked in its stowed position.

Power Host Video PS2 Connectors USB

- Check that all cables are plugged in properly.
- Turn on the monitor and then the computer.

PLUG AND PLAY



CONTROLS

The Controller features push-button controls on the lower front of the display screen to adjust the brightness of the display, to change the image positioning on the screen, and to refine the screen image.

To complete the setup of the display, use the following controls to fine tune the image on the screen:

BUTTONS

Z

Auto Position: Automatically aligns the active picture with the display window.

^ UP

Move up through menu functions.

v DOWN

Move down through menu functions.

< LEFT

Move left to adjust value for functions.

> RIGHT

Move right to adjust value for functions.

Menu MENU

Activate On-Screen Menu. Also, use this button to activate the highlighted function.

Exit EXIT

On-Screen Menu. from main menu or return from sub-menus to main menu

STANDBY/INCREASE BRIGHTNESS

Places display in Standby or Active mode.

A second function adjusts the backlight. Hold down to turn the main screen backlight on and off; press briefly and repeatedly to increase backlight in small increments.

CONTROLS

The three LED lights on the right of the control panel are labeled A, B and C. Their lighted functions are:

A — VIDEO A
green — VIDEO A is selected
B — VIDEO B (green) (future option)
green — VIDEO B is selected

If A & B are both green, it indicates Channel Auto Switching function is selected.

C — Computer Graphics (green/orange)
green — power and signal
orange — power and no signal
off — Standby mode

This section explains how to use the control buttons to adjust the clarity of the display and image position on the screen. In particular it discusses:

- The function of each of the push-button controls
- How to reset previously saved settings or return to factory settings
- Tips and techniques

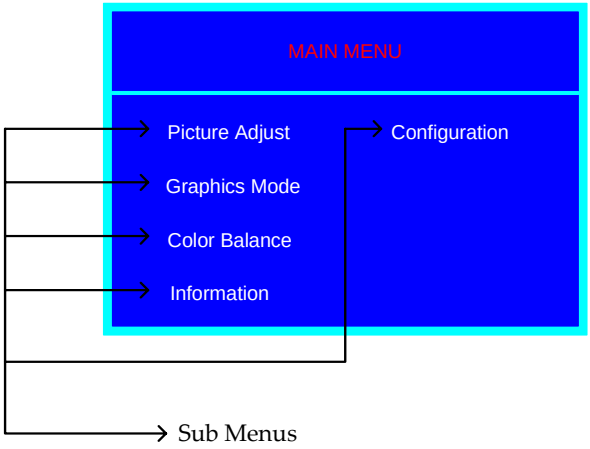
The control buttons allow the user to control image position, clarity and backlight operations ; to store settings, and to revert to previously factory-saved settings.

Shortcut to change the brightness

While the MENU is not displayed, press the up button to increase the brightness. Press the down button to decrease the brightness

ON-SCREEN MENU

On each item, there is a slider bar which indicates the current settings. Use the Left or Right buttons to adjust the function to the desired value.



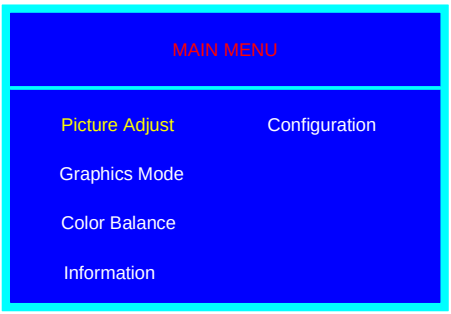
The Left button decreases the value and the Right button increases the value.

ACCESSING THE MENU SYSTEM

• If the MENU is not displayed, press the Menu button on the display controls. The Main Menu will be displayed.
• To change the highlighted line on the Menu push the Down or Up button on the display controls.
• When a sub-menu is highlighted, push the Menu button to enter the sub-menu.
• When a function is highlighted, push the Left or Right button to adjust the function's value.
• To return to the Main Menu, push the Exit button.

MENU ADJUSTMENT

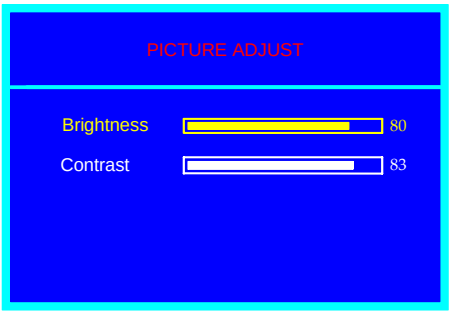
Main Screen



Highlight the Function

When the Menu is brought up, no function is highlighted. Push the Up button to highlight the first function or the Down button to highlight the last function. Push the Up and Down buttons again to highlight the desired function.

Picture Adjust



Brightness

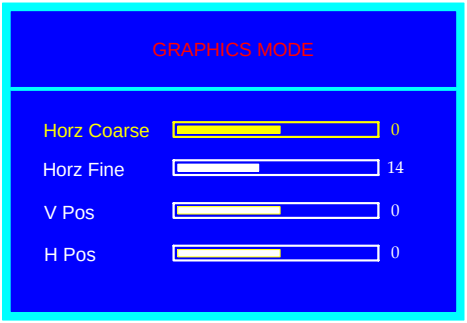
Push the Right button to increase the brightness and the Left button to reduce the brightness.

Contrast

Push the Right button to increase the Contrast and the Left button to reduce the contrast.

MENU ADJUSTMENT

Graphics Mode



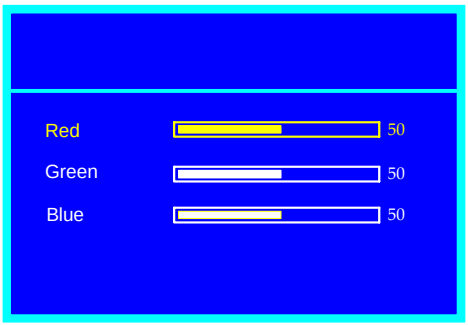
Horz. Coarse & Horz. Fine

The Coarse and Fine adjustments allow the user to adjust the sharpness of the Picture. For coarse adjustment, .0. means there is no offset from the standard value.

H & V Position

Position moves the viewing area around on the display screen. .0. means there is no offset from the standard value.

Color Balance

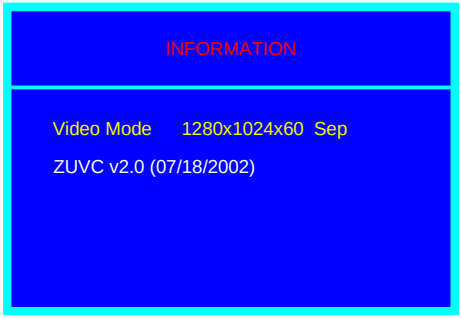


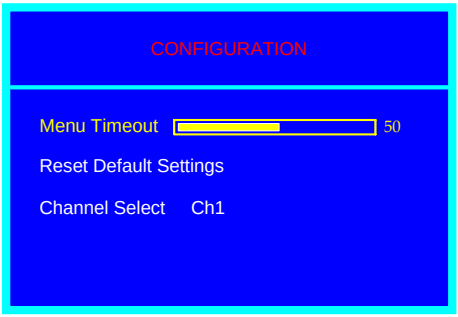
Red, Green & Blue

Provides the separate adjustment of RE, Green and Blue.

MENU ADJUSTMENT

Information





Video Mode

Display the current graphic resolution, refresh rate and synchronization mode.

Firmware Version

Display the firmware version and the date that the firmware was created.

Menu Time-out

Menu Time-out sets the length of the time the On-Screen Display will remain active after the last time a display control button is pressed.

Reset Default Settings

Push the Menu button to restore all settings to the factory preset values.

Channel Select (future option)

Push the Up or Down button to choose the desired channel. If Auto is selected, the panel will search both channels for an active signal.

NO IMAGE ON DISPLAY

What is the color of the standby LED?

Black — No power

• Make sure the power cable is plugged in.

• Connect the power cable to a 110V outlet, which is turned on.

• Wake up display by pressing the standby button

Orange — There is power, but no video signal

• If VIDEO A or VIDEO B is selected, make sure there is video signal coming into the selected channel.

• If Auto Mode is selected, make sure the video cable is plugged into the video connector.

• Make sure there is video signal coming out from the computer.

Green — There is power and there is a video signal

• Make sure the video signal coming out from the computer is not a black screen.

• Possible hardware failure, contact Z Microsystems Customer Support

NOTE: *For image problems, run AUTO SETUP again before consulting this section. In most cases, AUTO SETUP can fix the problems. See the Auto Setup section for details.*

NOTE: *If possible, stay by the computer. The Z Microsystems Technical Support Representative may wish to go through the problem over the telephone.*

NOTE: *More help, late-breaking news and details of the latest accessories for these products may be found on the worldwide web at::*

http://www.zmicro.com

Z Microsystems:
Phone (858) 657-1000
Fax: (858) 657-1001
Website: www.zmicro.com

Before calling, please have available as much of the following information as possible:

1. Model and serial number from the label on the monitor.
2. Purchase P.O.
3. Description of problem.
4. Computer type and model.
5. System configuration (hardware fitted, etc.).
6. System BIOS version number.
7. Operating System and version number.
8. Display driver version number.
9. Video Adapter Type.

WARNING: Be sure to turn off the power before you perform any maintenance on the monitor.

WARNING: To avoid risk of electric shock, do not disassemble the monitor cabinet. Users cannot service the monitor. User maintenance is restricted to cleaning as explained below.

Unplug the monitor from the power outlet before cleaning.

- To clean the flat panel display screen, lightly dampen a soft, clean cloth with water or mild detergent. If possible, use a special screen cleaning tissue or solution suitable for the antistatic coating.
- To clean the monitor cabinet, use a cloth lightly dampened with a mild detergent.
- Never use flammable cleaning material to clean the flat panel display or any other electrical apparatus.

SPECIFICATIONS

Display		
	Display Size	18.1 Inch
	Resolution	1280 X 1024
	Colors	16.7 Million
	Control	Control Panel or SoftMenus
Power		
	Power Consumption	60W
	Power Supply	AC 85-264 VAC, 47-63 Hz and 400 Hz
Cabling		
	Display Cable	6' cable, HD15
	Power Cable	6' cable, IEC or 6' cable, 5015
	Serial Cable	6' cable, DB9
	Total Weight	28 lbs.
Environmental		
	Operating Temp	0-55 degrees C
	Extended Op Temp	*-20-55 degrees C
	Non-operating Temp	-40-+70 degrees C
	Operating Humidity	5% to 95% Non-condensing
	Non-operating Humidity	5% to 95% Non-condensing
	Non-operating Altitude	-1,300 to 40,000 ft.
	Operating Altitude	-1,300 to 10,000 ft.
	Vibration	MIL-STD-167
	Shock	MIL-STD-810E (Method 516) 30 g's
		MIL-S-901D (In Isolated Rack)
	Sand and Dust	5.5 MPH for 25 mins (display bezel, keyboard and trackball only)
	Drip	MIL-STD-810E (display bezel, keyboard and trackball only)
	Fungus	Non-Nutrients/contaminants
Reliability		
	MTBF	20,000 Hrs. with Backlight change at 10,000 Hrs.
		Ground fixed environmental IAW MIL-HDBK-217F calculation technique.
	Maintainability	<30 mins.
Regulatory		
	Safety	UL 1950 (as a guideline)
	EMC	FCC Class A
Quality/Workmanship		
	IPC/ISO 9002 and applicable section of MIL-HDBK-454	

*Unit will power up at -20 degrees C, but backlight life is reduced. The LCD response time will be slow and the backlight will be dim at power up, but will improve as the display warms up.

WARRANTIES

Standard Warranty

-no charge-

Z Microsystems' one-year Standard Warranty includes a 90-day AirSpare Service Plan. This means that if any standard Z Microsystems' product fails within the first 90 days after shipping, the customer will automatically receive a new replacement.

All non-standard* products are covered for one year under Z Microsystems' Standard Warranty that includes free parts and labor. However, the 90-day AirSpare Plan can be purchased as an additional option for non-standard products.

- 1-90=Z AirSpare Service
- 91-365=Free Parts and Labor
- 24 hour/7 days-a-week telephone technical assistance
- Online technical help
- Email product updates

*a non-standard product is a prototype or a product specifically designed or engineered per a customer's specification

To return a defective product a customer can call the Z Microsystems Customer Service Department at 1-858-657-1000, ext. 232, or fill out the RMA Request Form on our website. Please see the section in this manual titled, "Replacements" for details on how to replace a part.

Z Extended Warranty

Z Microsystems' Extended Warranty Plan provides one and two year extended warranty options under which a Standard Warranty is extended from the end of the first year of the Standard Warranty period.

The One-Year Extended Warranty period will begin on the day the Standard Warranty expires and the Two-Year Extended Warranty begins when the One-Year Extended Warranty expires.

1-90=Z AirSpare Service

91-365=Free Parts and Labor

- 24 hour/7 days-a-week telephone technical assistance
- Online technical help
- email product updates

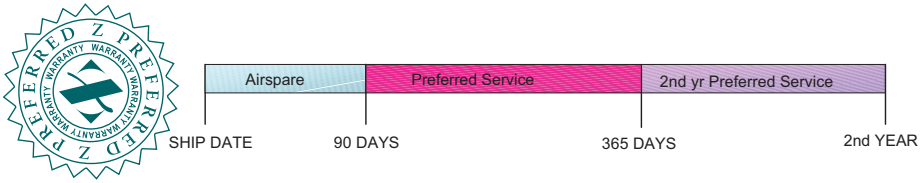
2nd year=Free Parts and Labor

- 24 hour/7 days-a-week telephone technical assistance
- Online technical help
- email product updates

3rd year=Free Parts and Labor

- 24 hour/7 days-a-week telephone technical assistance
- Online technical help
- email product updates

Z Preferred Warranty



Z Microsystems provides a Preferred Service Plan under which Z Microsystems will repair or replace and return a defective product to the customer within one week of Z Microsystems' receipt of the defective product.

1-90=Z AirSpare Service

91-365=Free Parts and Labor

- 24 hour/7 days-a-week telephone technical assistance
- Online technical help
- email product updates
- Guaranteed One Week Turnaround

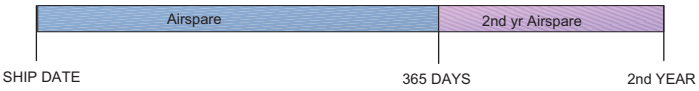
2nd year=Free Parts and Labor

- 24 hour/7 days-a-week telephone technical assistance
- Online technical help
- email product updates
- Guaranteed One Week Turnaround

3rd year=Free Parts and Labor

- 24 hour/7 days-a-week telephone technical assistance
- Online technical help
- email product updates
- Guaranteed One Week Turnaround

Z AIRSPARE WARRANTY



Z Microsystem provides an AirSpare Service Plan that will replace a defective product, within the first year of the warranty period, with a new product the following business day.* The AirSpare Service Plan does not cover special order items. A product may be deemed a special order itme at the discretion of the Customer Service Department. Z Microsystems, at its discretion, may offer the AirSpare Service Plan to a customer who purchases a special order item at the one-year rate.

*Z Microsystems cannot guarantee next day delivery if contacted after 2:00 PM Pacific Time. Calls on Fridays or before holidays will receive a new product the following business day.

1st Year=24 hour replacement

- o 24 hour/7 days-a-week telephone technical assistance
- o Online technical help
- o email product updates

2nd Year=24 hour replacement

- o 24 hour/7 days-a-week telephone technical assistance
- o Online technical help
- o email product updates

Z On-Site Service

Z Microsystems also provides on site service and consultation to customers who require Z Microsystems' technical expertise.

Disclaimer

Z Microsystems warrants that every product is free from defects in materials, workmanship and conforms to Z Microsystems' stringent specifications.

Z Microsystems calculates the expiration of the warranty period from the date the product is shipped. This means that the ship date on your invoice is your product ship date unless Z Microsystems informs you otherwise. During the warranty period, Z Microsystems will provide warranty service under the type of warranty purchased for the product.

Replacement parts will assume the remaining warranty of the parts they replace. If a product does not function as warranted during the warranty period, Z Microsystems will repair or replace the part (with a product that is as a minimum functionally equivalent) without charge.

If the product is transferred to another user, the warranty service is available to that user for the remainder of the warranty period.

Z Microsystems' warranties are voided if the covered product is damaged due to an accident or abuse. The warranty is voided if the product is shipped in sufficient packaging.

Under no circumstances is Z Microsystems liable for any of the following:

1. Third-party claims against you for losses or damages,

2. Loss of, or damage to, your records or data,

or

3. Economic consequential damages (including lost profits or savings) or incidental damages, even if Z Microsystems is informed of their possibility.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from jurisdicion to jurisdiction.

Warranty does not take effect until full payment is received by Z Microsystems.

If the Z Microsystems Technical Support Engineer determines that the product needs to be replaced, a Customer Service representative will issue a Return Material Authorization (RMA) number and return address.

An RMA number is required to return a product to Z Microsystems, regardless of the reason for the return.

The following information is required when returning Z Microsystems products:

1. Model number
2. Serial number
3. Date of purchase
4. Proof of purchase (use the invoice or packing slip)
5. Customer ship-to address and any special shipping requirements
6. Specific and detailed description of the problem

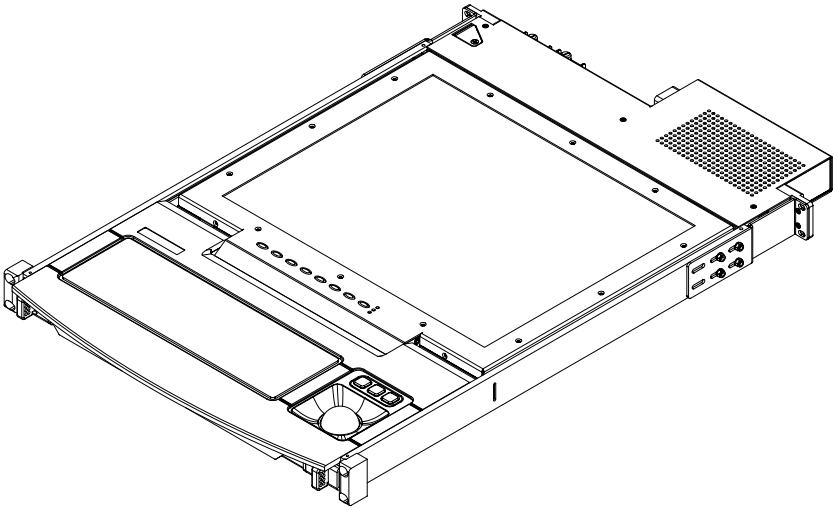
We value feedback on our products, their performance, any problems and constructive suggestions. Please send such productive information in writing to:

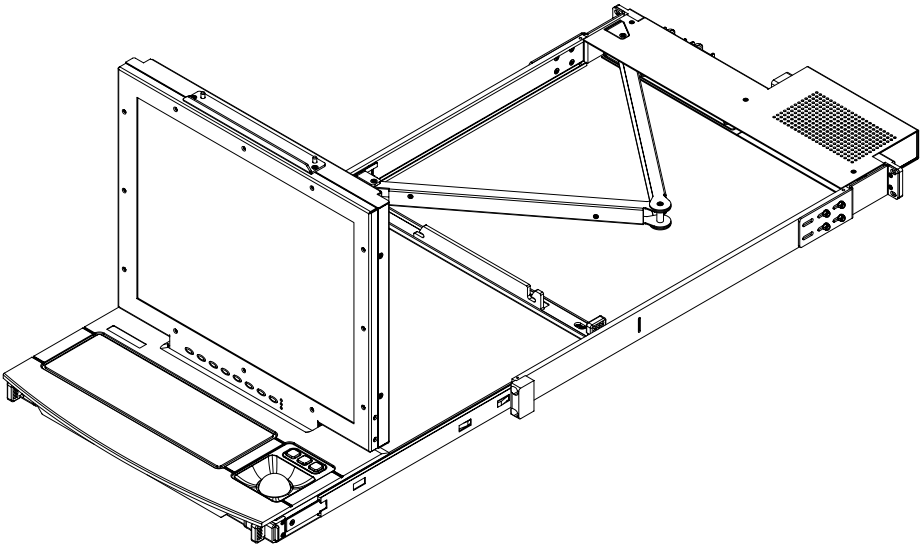
Customer Service

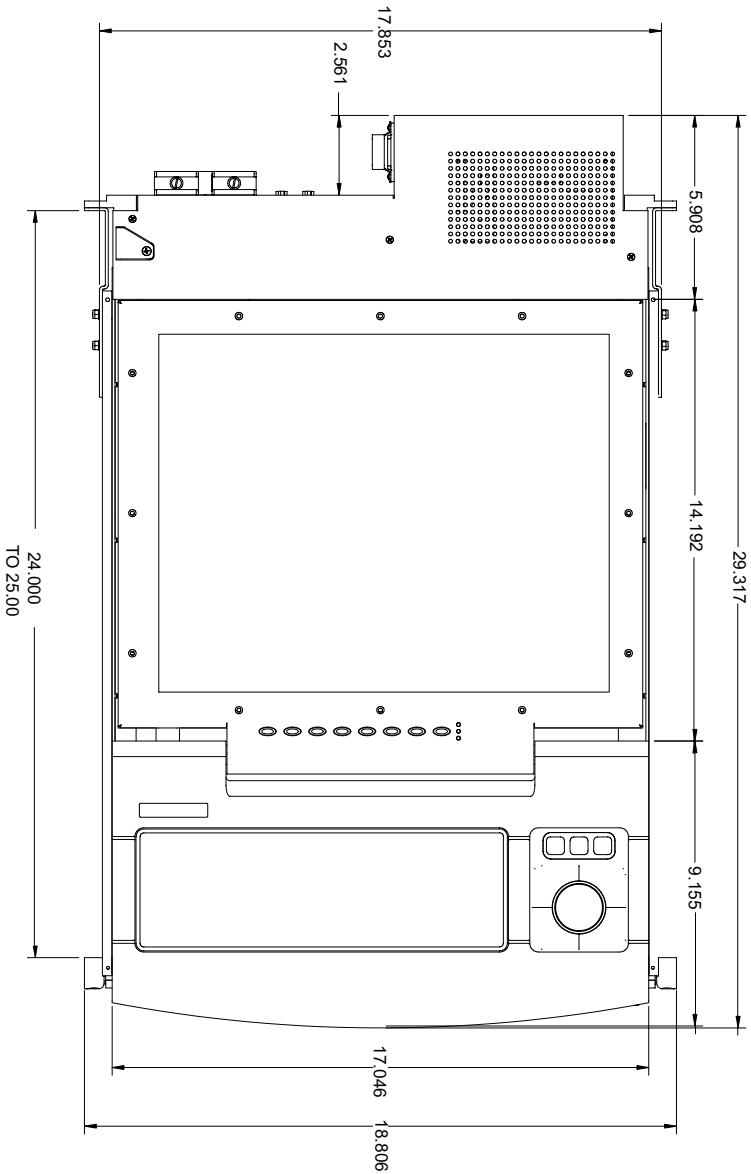
Z Microsystems

5945 Pacific Center Blvd., Suite 505
San Diego, CA 92121-4309

or www.zmicro.com

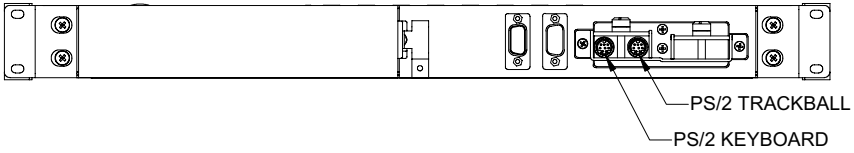





17.853
2.561
5.908
14.192
29.317
24.000
TO 25.00
9.155
17.046
18.806

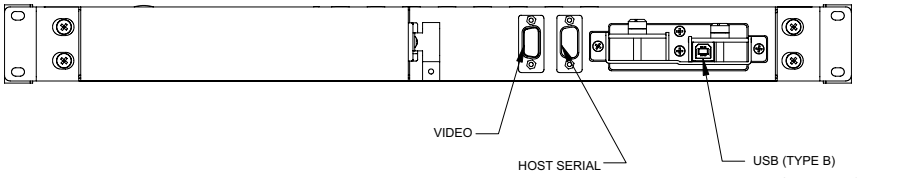
Rear View

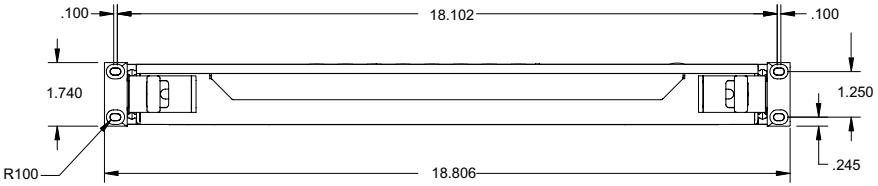
PS/2 Version

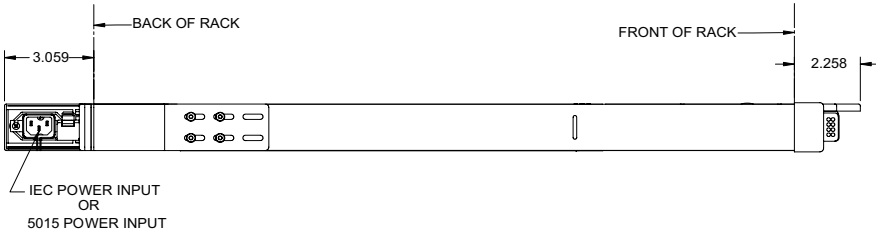


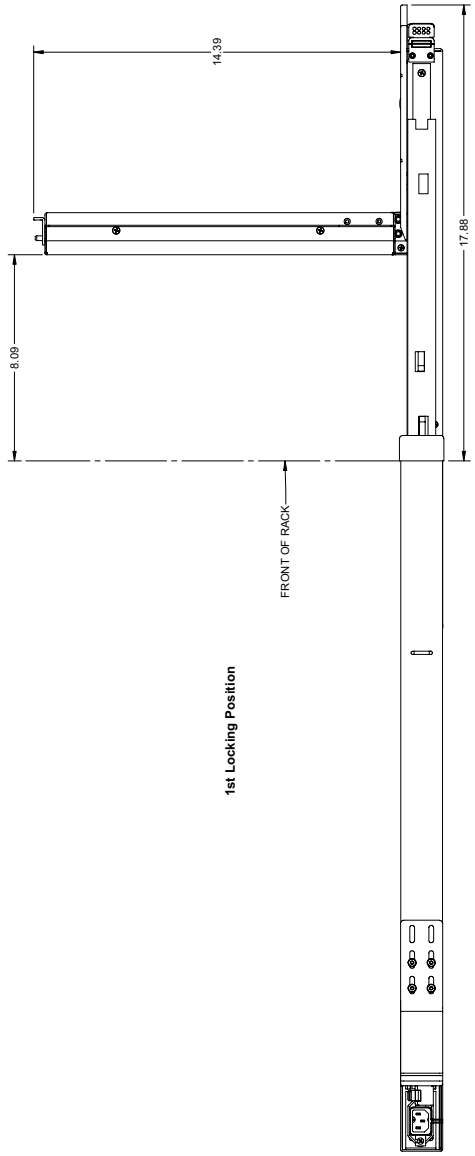
Rear View

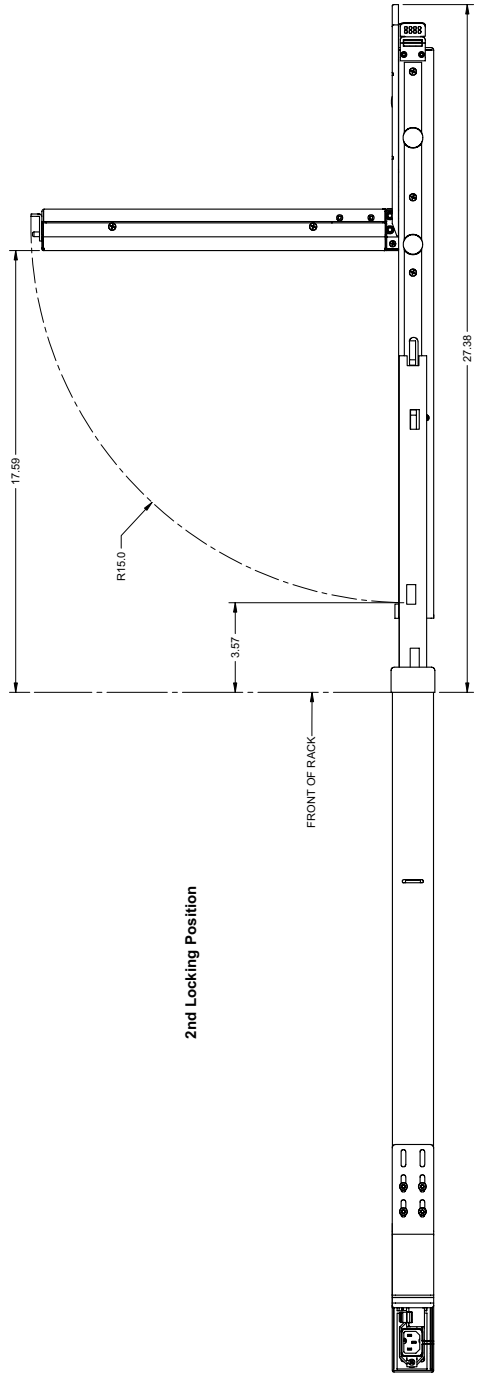
USB Version








14.39
17.88
8.09
FRONT OF RACK
1st Locking Position


27.38
17.59
R15.0
3.57
FRONT OF RACK
2nd Locking Position

01-91539	Nut, Nylck, Hex, 6-32
01-92026	Screw, 6-32 x .375 Flat Hd, 100 deg
01-92058	Washer, Flat, #6
01-92112	Screw, 10-32 x .75 Pan Hd. Sems (Scr & Wash Assy) Command Console

Z Microsystems, Inc.

5945 Pacific Center Blvd., Suite 509

San Diego, CA 92121

Phone: (858) 657-1000

Fax; (858) 657-1001

Website: www.zmicro.com

Copyright 2002 Z Microsystems, Inc. All Rights Reserved